

## for Consumers

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# "Gas-Saving" Products

### *fast facts*

- After evaluating and testing more than 100 alleged gas-saving devices, the EPA has found only a few that improve mileage and none that do so significantly.
- Some "gas-saving" products may damage a car's engine or cause substantial increases in exhaust emissions.
- Be cautious about glowing testimonials by "satisfied" customers. Few consumers have the ability to test for precise changes in gas mileage.
- Claims that the Federal government has "approved" any gas-saving device are false.

Bureau of Consumer Protection  
Office of Consumer &  
Business Education  
(202) 326-3650

Whenever gasoline prices rise, consumers often look for ways to improve fuel mileage and save gas. Although there are practical steps you can take to increase gas mileage, the Federal Trade Commission (FTC) warns you to be wary of any gas-saving claims for automotive devices or oil and gas additives. Even for the few gas-saving products that have been found to work, the savings have been small.

This brochure alerts you to bogus "gas-saving" ad claims, tells you what to do if you have a complaint, and suggests practical ways to get better gas mileage. It also discusses the possible effects of using gas-saving products, lists various types of products that have been evaluated by the Environmental Protection Agency (EPA), and provides sources for more information.

### "Gas-Saving" Advertising Claims

Often, when gas prices rise sharply, so does the advertising of "gas-saving" products. The FTC warns you to be extremely skeptical of the following kinds of advertising claims.

*"This gas-saving product improves fuel economy by 20 percent."*

Savings claims may range anywhere from 12 to 25 percent. However, the EPA has evaluated or tested more than one hundred alleged gas-saving devices and found only a few that improve mileage and none that do so significantly. In fact, some "gas-saving" products may damage a car's engine or cause substantial increases in exhaust emissions.

The gas-saving products on the market seem to fall into clearly defined categories. Although the EPA has not tested or evaluated every product, it has tried to examine at least one product in each category. See the list at the end

of this brochure for category descriptions and product names.

*"After installing your product on my car, I got an extra 4 miles [6.4 kilometers] per gallon [3.8 liters]."*

Many ads feature glowing testimonials by satisfied customers. Yet, few consumers have the ability or the equipment to test for precise changes in gas mileage after installing a gas-saving product. There are too many variables that affect fuel consumption, such as traffic, road and weather conditions, as well as the car's condition.

For example, one consumer sent a letter to a company praising its "gas-saving" product. At the time the product was installed, however, the consumer also had received a complete engine tune-up — a fact not mentioned in the letter. The entire increase in gas mileage attributed to the "gas-saving" product may well have been the result of the tune-up alone. But from the ad, other consumers could not have known that.

*"This gas-saving device is approved by the Federal government."*

No government agency endorses gas-saving products for cars. The most that can be claimed in advertising is that the EPA has reached certain conclusions about possible gas savings by testing the product or by evaluating the manufacturer's own test data. If the seller claims that its product has been evaluated by the EPA, ask to see the test results. Or better yet, get a copy from the EPA.

### Product Complaints and Refunds

If you bought a gas-saving product and you are not satisfied, contact the manufacturer and ask for a refund. Most companies offer money-back

guarantees. Even if the guarantee period has expired, still contact the company.

If you are not satisfied with the company's response, contact your local or state consumer protection agency or the Better Business Bureau. You also can send your complaint to the FTC. Although the FTC does not handle individual cases, the information you provide may indicate a pattern of possible law violations requiring action against a company by the Commission.

## Real Money-Saving Steps

To combat rising gas prices, there are some practical steps you can take. The most important place to start is at the gas pump; buy only the octane level gas you need. All gasoline pumps must disclose the octane content of the gas under the FTC's Octane Posting and Certification Rule. Remember, the higher the octane, the higher the price.

To determine what octane level you need, check your owner's manual to find out what the auto manufacturer recommends. But keep in mind, individual cars vary. If your engine "pings" or "knocks," you might need a higher octane or a tune-up.

To get better gas mileage, you also can:

- get a tune-up, as recommended in your owner's manual.
- check your tire pressure and, if necessary, add air to your tires. Underinflated tires will cause your car to use more gas.
- remove any excess weight from your car's trunk.

## EPA Evaluation Efforts

The EPA evaluates or tests products to determine whether their use will result in any measurable improvement to fuel economy. However, the EPA cannot say what effect gas-saving

products will have on a vehicle over a long period of time because it has not conducted any durability tests. It is possible that some products may harm the car or may otherwise adversely affect its performance. For example, if an "air bleed" device actually adds significant amounts of air to the air-and-fuel mixture (as some advertisers have claimed), it may cause an engine to misfire. This is especially likely to happen on cars manufactured between 1974 and 1982, because their carburetors are pre-set for a maximum amount of air to be burned with the fuel. The addition of more air, through a so-called "gas-saver," may change the misfire enough to cause engine misfiring, a condition which greatly increases the potential engine damage or mechanical failure.

In addition, "air-bleed" devices will not work at all on many cars manufactured after 1982, because these cars have "feedback" carburetors that automatically adjust the air-and-fuel mixture in the engine to respond to electrical signals from the exhaust system. In these cars, if the air-bleed device adds more air to the engine, the carburetor simply will make an adjustment to compensate for the additional air, making the device useless.

## Devices Tested by EPA

The following list categorizes the various types of "gas-saving" products, explains how those products are used, and provides product names. Those that are marked with asterisks may save small but measurable amounts of gas. All others have been found not to increase fuel economy.

**Air Bleed Devices.** These devices bleed air into the carburetor. They usually are installed in the PCV line or as a replacement for idle-mixture screws. (The EPA has evaluated the

following products: Landrum Retrofit Air Bleed; Pollution Master Air Bleed; ADAKS Vacuum Breaker Air Bleed; Berg Air Bleed; Econo Needle Air Bleed; Monocar HC Control Air Bleed; Air-Jet Air Bleed; Aquablast Wyman Valve Air Bleed; Peterman Air Bleed; Mini Turbocharger Air Bleed; Ball-Matic Air Bleed; Landrum Mini-Carb; Econo-Jet Air Bleed Idle Screws; Turbo-Dyne G.R. Valve; Auto-Miser; Ram-Jet; Fuel Max\*; Grancor Air Computer; Hot Tip; Gas Saving Device; Brisko PCV; Cyclone-Z.)

**Vapor Bleed Devices.** Similar to the Air Bleed devices, except that induced air is bubbled through a container of water/anti-freeze mixture, which usually is located in the engine compartment. (The EPA has evaluated: Frantz Vapor Injection System; Turbo Vapor Injection System; SCATPAC Vacuum Vapor Induction System; Econo-Mist Vacuum Vapor Injection System; Mark II Vapor Injection System; Platinum Gasaver, V-70 Vapor Injector; Hydro-Vac; POWERFUEL.)

**Liquid Injection.** These products add liquid into the fuel/air intake system and not directly into the combustion chamber. (EPA has evaluated: Goodman Engine System - Model 1800; Waag-Injection System\*.)

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\* Indicated a very small improvement in fuel economy, but with an increase in exhaust emissions. According to Federal Regulations, installation of this device could be considered illegal tampering.

**Ignition Devices.** These devices are attached to the ignition system or they are used to replace original equipment or parts. (EPA has evaluated: Paser Magnum/Paser 500/Paser 500 HEI; BIAP Electronic Ignition Unit; Magna Flash Ignition Control System; Special Formula Ignition Advance Springs; Autosaver; Baur Condenser; Fuel Economizer.)

**Fuel Line Devices (heaters or coolers).** A device that heats the fuel before it enters the carburetor. Usually, the fuel is heated by the engine coolant or by the exhaust or electrical system. (EPA has evaluated: FuelXpander; Gas Meiser I; Greer Fuel Preheater; Jacona Fuel System; Russell Fuelmiser; Optimizer.)

**Fuel Line Devices (magnets).** These are magnetic devices which are clamped to the outside of the fuel line or installed in the fuel line and claim to change the molecular structure of gasoline. (EPA has evaluated: Super-Mag Fuel Extender; Wickliff Polarizer [fuel line magnet/intake air magnet]; POLARION-X; PETRO-MIZER.)

**Fuel Line Devices (metallic).** Typically, these contain several dissimilar metals that are installed in the fuel line, supposedly causing ionization of the fuel. (EPA has evaluated: Moleculetter; Malpassi Filter King [fuel pressure regulator].)

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**Mixture Enhancers (under the carburetor).** These devices are mounted between the carburetor and intake manifold and supposedly enhance the mixing or vaporization of the air/fuel mixture. (EPA has evaluated: Energy Gas Saver; Hydro-Catalyst Pre-Combustion Catalyst System; Environmental Fuel Saver; Glynn-50; Sav-A-Mile; Turbo-Carb; Spritzer; PETROMIZER SYSTEM; Gas Saving and Emission Control Improvement Device; Turbocarb.)

**Mixture Enhancers (others).** Devices which make some general modifications to the vehicle intake system. (EPA has evaluated: Electro-Dyne Superchoke; Filtron Urethane Foam Filter; Lamkin Fuel Metering Device; Smith Power and Deceleration Governor; Basko Enginecoat; Dresser Economizer.)

**Internal Engine Modifications.** Devices which make physical or mechanical function changes to the engine. (EPA has evaluated: ACDS Automotive Cylinder Deactivation System\*; Dresser Economizer; MSU Cylinder Deactivation\*.)

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**Fuels and Fuel Additives.** These materials are added to the gas tank. (EPA has evaluated: Stargas Fuel Additive; Sta-Power Fuel Additive; Technol G Fuel Additive; Johnson Fuel Additive; Vareb 10 Fuel Additive; Rolfite Upgrade Fuel Additive; QEI 400 Fuel Additive; EI-5 Fuel Additive; NRG #1 Fuel Additive; XRG #1 Fuel Additive; ULX-15/ULX-15D; SYNERGy-1; Bycosin.)

**Oils and Oil Additives.** Usually these materials are poured into the crankcase. (EPA has evaluated: Analube Synthetic Lubricant; Tephguard.)

**Driving Habit Modifiers.** These are lights or sound devices to tell the driver to reduce acceleration or to shift gears. (EPA has evaluated: AUTOTHERM\*\*; Gastell; Fuel Conservation Device; IDALERT\*\*.)

## Sources for More Information

For information about EPA test procedures and test results, contact Tony Barth, Retrofit Device Evaluation Program, Environmental Protection Agency, 2565 Plymouth Road, Ann Arbor, MI 48105.

The FTC has published a brochure on octane ratings. To order a free copy, write: Public Reference, Federal Trade Commission, Washington, D.C. 20580.

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\*\* Indicated a very small improvement in fuel economy without an increase in exhaust emissions. However, cost-effectiveness must be determined by the consumer for a particular application.

**FTC Headquarters**

6th & Pennsylvania Avenue, N.W.  
Washington, D.C. 20580  
(202) 326-2222  
TDD (202) 326-2502

**FTC Regional Offices**

1718 Peachtree Street, N.W., Suite 1000  
**Atlanta**, Georgia 30367  
(404) 347-4836

10 Causeway Street, Suite 1184  
**Boston**, Massachusetts 02222-1073  
(617) 565-7240

55 East Monroe Street, Suite 1437  
**Chicago**, Illinois 60603  
(312) 353-4423

668 Euclid Avenue, Suite 520-A  
**Cleveland**, Ohio 44114  
(216) 522-4207

100 N. Central Expressway, Suite 500  
**Dallas**, Texas 75201  
(214) 767-5501

1405 Curtis Street, Suite 2900  
**Denver**, Colorado 80202-2393  
(303) 844-2271

11000 Wilshire Boulevard, Suite 13209  
**Los Angeles**, California 90024  
(310) 575-7575

150 William Street, Suite 1300  
**New York**, New York 10038  
(212) 264-1207

901 Market Street, Suite 570  
**San Francisco**, California 94103  
(415) 744-7920

2806 Federal Bldg., 915 Second Ave.  
**Seattle**, Washington 98174  
(206) 553-4656